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Academic libraries are particularly affected by current financial problems in U.S. higher education. Lack of funds to make transitions as rapidly as higher education has changed focus or added dimensions is a recurrent theme in academic library development. This article presents the major developments and critical points of U.S. higher education and academic libraries in a chronological chart. A brief introduction provides an overview of these developments, and the accompanying seven-page bibliography provides complete citations for items in the chart and text. Emphasis is placed on landmark ideas and events, their implementation, and the impact of funding on advancement in higher education and its subset, academic libraries. This paper is designed to provide academic administrators and faculty members with the greater understanding of their institutional libraries within the broader scope that they need in this time of financial limitations. (Author/KM)

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THE DEVELOPMENT

OF

U.S. ACADEMIC LIBRARIES AND HIGHER EDUCATION, 1636 to 1960

by

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Abstract

Academic libraries are affected particularly by current financial problems in U.S. higher education. Lack of funds to make transitions as rapidly as higher education changed focus or added dimensions is a recurrent theme in academic library development. This article presents the major developments and critical points of U.S. higher education and academic libraries in a chronological chart. A brief paper gives an overview of these developments, and the accompanying bibliography provides complete citations for items in the chart and text. Emphasis is placed on landmark ideas and events, their implementation, and the impact of funding on advancement in higher education and its subset, academic libraries. Particularly in this time of financial limitations, academic administrators and faculty members need a greater understanding of their institutional libraries within the broader scope.

Academic libraries developed along with American higher education, taking their emphasis from the changing form, substance, and methodology of their institutions. At times, libraries appeared suprisingly advanced. Sometimes their change meshed closely with advances in higher education, but often libraries changed more slowly. A recurrent theme in academic library development is the lack of funds to make transitions as rapidly as higher education changes focus or adds dimensions. This theme, particularly apparent in the austerity of the 1980s, began at the time academic libraries first developed collections for wide use rather than for preservation. The purpose of this article is to cite critical points in the developments of higher education and academic libraries on a chronological chart indicating relative advancement, with an overview provided in the text. As libraries face increasingly difficult times, an understanding of their development in academe is particularly significant.

Colonial colleges generally began with a charter and the gift of books. Acquiring books was for a limited purpose with use restricted to faculty, administrators, and trustees in most cases. The situation is seen clearly in the often repeated tale of a mid-nineteenth century Harvard librarian meeting the college president and being asked where he was going. According to the story, the librarian replied that only two books were out of the library and that he was on his way to fetch those. Higher education, based on the English model, was highly structured learning; the library was little involved in the teaching process.

During the colonial period, however, libraries did change. In 1667 Harvard appointed the first academic librarian in the U.S., and the library function began to separate from direct control of college administrators. During that period, catalogs of holdings in page format were prepared and by 1823 Harvard had a printed catalog.

By 1770 the nine colonial colleges were operating, and students were seeking

to broaden their education through the formation of literary societies and the extracurriculum. State colleges began with the founding of the University of Georgia in 1785, but more sweeping changes followed with the founding of the University of Virginia and other institutions based on a broader educational model and offering more flexible study choices. Vocational and technical schools developed and those elements came into the college setting. The original nine colleges resisted these changes, the most influential move being the Yale Report of 1828 which favored conservative curriculum.

Gradually the role of academic libraries changed, with undergraduates allowed some access. Within the nation's libraries, however, major ideas were being formed that would lead to extraordinary advances by 1876. In 1848 William Frederick Poole published Index to Periodical Literature, the first major general index offering access to periodical articles. A union catalog, listing holdings for major U.S. libraries, was proposed in 1851, and that same year reproduction of holdings information with sterotype plates was discussed. Two years later, the first card catalog was installed, followed by book content subject headings in 1861 and by Melvil Dewey's grasp of the basis for his classification scheme in 1873. Within the realm of these notions lay the basis for modern research access methods to printed material. These findings led directly to a workable interlibrary loan system, uniformity in cataloging processes, subject access to material, and arrangement of library material by subject areas. The innovations bridged the gap between small collections arranged by size or order of acquisition which library keepers must know intimately to functional large collections in which users could pursue independent research.

In 1861 Yale granted the first U.S. Ph.D., and eight years later undergraduate education began a major change with the introduction of the elective system at Harvard. Both academic libraries and higher education were on the threshold of

transition, and in 1876 both fields moved into the modern era. That year Johns Hopkins was founded on the German model and began the trend toward seminars, research, and investigation. Graduate programs multiplied, and professional education in such fields as engineering became a force in higher education. The American Library Association was founded that year, bringing formalized national effort to developing all types of libraries. Within the organization noted leaders such as Dewey, Poole, Cutter, and Jewett worked together toward major advances for libraries. At that first meeting, twelve of the hundred present were women, marking an early acceptance of women in the field but also foretelling difficulty in bringing a profession out of the lower ranks allotted to those including many females. Also in 1876 Dewey Classification was printed; by 1927 ninety-six percent of the public libraries and eighty-nine percent of the academic libraries were using this classification scheme. That landmark year of 1876 saw Harvard library with 212,000 volumes, by far the largest academic library in the nation, but most academic libraries retained closed stacks and had no full time librarian.

The term librarian took on new meaning in 1887 when the first regular library school was established by Dewey at Columbia, much to the disgust of many at that school which did not allow women in classrooms. Early classes met in an emptied lumber room to accomodate women students. The need for trained librarians became more recognized in academic circles as research and reading increased with instructional changes.

Higher education continued to expand with the University of Chicago founded in 1892 and the first public junior college begun nine years later. By 1901 academic libraries were handling interlibrary loan effectively, although formal national regulations were not yet written and each library operated under its own set of rules. In 1903 the Library of Congress began to assume a stronger leadership role. Academic libraries began to meet broader needs with the rise of the Wisconsin Idea

in 1904.

Changes in the role of librarian are seen in the 1911 Columbia trustees' decision that librarians there hold academic rank. By 1915 most of the old custodial image was gone with reference recognized as a separate departmental function. Around 1919 systematic instruction in library use began to be offered to university students. During the years since colonial higher education, the focus on research and library use had changed to the point that academic librarians assumed the role of information specialist, an aspect constantly expanding today. No longer were institutions meeting educational needs of a few following a closely prescribed formula of learning. Special and seminar collections were formed during this period so material would be more closely located to the teaching areas. Standards, forming the basis for accreditation, were established then, although widespread accreditation did not come until the 1930s. By the late 1920s academic libraries were experiencing difficulty with their budgets, and, particularly in the sciences, need for current journals was playing havoc with material funding. This as yet unresolved problem continues to plague librarians trying to meet curricular and research demands. In 1928 the University of Chicago Library School was established and offered the first doctorate in librarianship.

During the 1930s, academic library collections grew substantially with the five oldest college libraries having an average increase of 42.3 percent and the five newest college libraries showing a 93.6 percent increase. In this decade both academic libraries and higher education experienced innovations. Experimental colleges were founded, operating from non-traditional bases which later influenced the mainstream. In academic libraries, librarians were told a fact which remains true - they were and are underpaid as a profession. National and international sharing of knowledge improved with the establishment of union catalogs. For the first time, academic libraries began to automate with the installation of an

automatic punchcard system at the University of Texas. Use of computers is a major area in which academic libraries have lagged behind higher education in general. Years after universities began to handle many operations by computer, academic libraries lacked funding to automate.

The 1940s saw the continuation of cooperative projects and the development of techniques to make microform collections possible. To meet researchers' increasing needs, the development of microform collections was essential to provide material unobtainable in other formats. Junior colleges grew in numbers and their libraries became more viable. Reports and commissions dealt with problems of higher education, which received more national emphasis with the G.I. Bill bringing adults as a new clientele. Academic librarianship developed further as a profession; in 1944 the University of Illinois became the first major university to grant full faculty status to all their librarians. In the last year of the decade Lamont Library opened at Harvard; it was the first undergraduate library established.

Within the 1950s came even greater changes as Sputnik's flight centered attention on the need for more scientific training. The federal government's interest in higher education intensified. Academic libraries continued to move toward uniform standards, still striving to meet educational needs with budgets which were never large enough.

The development of academic libraries between 1636 and 1960 shares many characteristics with the development of higher education during those years. However, in matters requiring funding, academic libraries lagged behind. The frequently expressed notion that the library is the heart of the university often is unfortunately untrue when the issue is money.

Chronological Chart

Complete references to works cited in the chronological chart are in the bibliography. Use of first indicates earliest example in the United States.

Academic Libraries, 1636 - 1959

1636 -

1638 Harvard greatly enriched by a bequest of books and money from John Harvard. (Morison, p. 220)

1642 Books in Harvard library not chained although books kept chained at major English universities until mid-18th century. (Morison, pp. 263-264) -

1649 First special privilege status granted by an academic library to a non-affiliated layman, at Harvard. (Shores, p. 12)

1667 Harvard appointed the first academic librarian, Solomon Stoddard. He held a M.A. degree from that institution. (Hamlin, p. 10)

- First set of library rules and regulations formulated, at Harvard. (Shores, p. 13)

1693 c1693 William and Mary library founded soon after college chartered. (Shores, p. 18) -

1701 Tradition notes that books were donated for the future library at meeting when Yale was -

Higher Education, 1636 - 1959

Massachusetts General Court passed an act which led to the founding of Harvard. (Morison, p. 168)

First bachelor's degrees awarded, to 9 men at Harvard. (Morison, p. 261)

William and Mary chartered. (Rudolph, p. 7)

Yale founded. (Oviatt, p. 159)

1701 contd. founded, but the actual gifts probably were donated in 1702. (Kelley, pp. 5-6)

1723 First printed library catalog issued, at Harvard. (Ency. of Lib. & Info. Sc. 4:260) It was for distribution to British potential donors. (Ranz, p. 7)

1728

1736 Harvard Library Laws revised but not more liberal - library open 11 a.m. - 2 p.m. on Fridays. (Ency. of Lib. & Info. Sc. 10:334)

1740 Yale library established its first complete library code, limiting borrowing to administrators, trustees, and senior students; charging for borrowing by size of volume; one month loan with overdue fines. (Dexter, pp. 345-346)

1746 c1746 Princeton library established. (Shores, p. 28)

Higher Education

- Hollis Professorship of Mathematics and Natural Philosophy established at Harvard, indicative of new interest in science. (Brubacher & Rudy, p. 16)

- Princeton founded. (Wertenbaker, p. 22)

Academic Libraries

1750

1754 King's College (Columbia) library established. (Shores, p. 32)

1755

1764 Harvard library in Harvard Hall burned. Rebuilding began immediately. (Eliot, pp. 67-69) App. 5000 books were lost. (Ranz, p. 4)

1765 Brown library begun c1765. (Shores, p. 40)

1766

1769 Dartmouth library founded seven years previously. (Shores, p. 45)

1770

1776

1782 Departmental library movement began with vote for separate library collections for medicine and public health schools at Harvard. (Elliott, p. 323)

Higher Education

- More teaching of natural sciences after 1850. (Brubacher & Rudy, p. 16)
- King's College (Columbia) founded. (Hofstadter & Hardy, p. 4)
- University of Pennsylvania chartered. (Shores, p. 36)
- Brown founded. (Bronson, p. 500)
- Queen's College (Rutgers) founded. (Hofstadter & Hardy, p. 4)
- Dartmouth founded. (Hofstadter & Hardy, p. 4)
- Early extracurriculum exemplified by the founding of two literary societies at Princeton. (Brubacher & Rudy, p. 48)
- Phi Beta Kappa established at William and Mary. (Levine, p. 501)

Academic Libraries

1785

1787

1815

1819 First medical library established as departmental library, at Harvard. (Elliott, p. 323)

1824

Higher Education

- First state college chartered - the University of Georgia. (Rudolph, p. 275)
- First federal support for higher education, agreement with the Ohio Company of Associates that of purchased federal land the equivalent of two townships be committed to university support. (Int'l. Ency. of Higher Ed.: 9:4233)
- First three students go to Germany for further study; this began the practice of advanced education abroad, leading to the development of U.S. graduate education. (Levine, p. 501)
- Dartmouth College case established institutional autonomy by the ruling that a state cannot alter a charter for a private institution after it has been granted. (Rudolph, p. 210)
- University of Virginia founded with 8 fields of study, based on Thomas Jefferson's plan. (Rudolph, p. 125)
- First separate totally technical school founded, Rensselaer Polytechnic Institute. (Brubacher & Rudy, p. 61)

Academic Libraries

1825

1826

1827

1828

1837

1848 Poole published the first edition of his Index to Periodical Literature, first major general index. (Williamson, p. 10)

1850 Libraries began to allow public use of card catalogs as cost led to a decline in book catalogs. Harvard had a public card catalog in 1861. (Ranz, p. 53)

Higher Education

- University of Nashville established with vocational focus, as well as intellectual. (Levine, p. 502)
- Amherst began a more flexible curriculum with a parallel course abandoned after 2 years. (Brubacher & Rudy, p. 103)
- Union College established with a scientific parallel course which was more successful than Amherst's attempt. (Brubacher & Rudy, p. 103)
- Yale Report issued favoring conservative prescribed curriculum - very influential in deterring change. (Kelley, pp. 162-165)
- Coeducational higher education began, at Oberlin. (Rudolph, p. 311)

Academic Libraries

1851 Charles Jewett, librarian at Smithsonian Institution proposed a union catalog of major U.S. libraries with uniform code and low cost reproduction by stero-type plates. (Borome, p. 58) These were essential to later development of inter-library loan and uniform processing.

1853 c1853 Charles Folsom installed what was probably the first card catalog at the Boston Athenaeum. (Datz, p. 477)

1861 First time books given subject headings by content rather than by title, at Harvard. (Ency. of Lib. and Info. Science 4:266)

1862

1869

Higher Education

First master's degree based on a particular program rather than specified number of years of study offered, at University of Michigan. (Levine, p. 505)
Yale awarded the first Ph.D. in U.S. (Rudolph, p. 269)

Morrill Land-Grant Act passed, beginning land-grant colleges of agricultural and mechanical arts. (Int'l. Ency. of Higher Ed. 9:4231)
Cornell opened with combination of study areas: scholarship, vocational topics, and applied science. (Rudolph, pp. 266-267) The Cornell Plan was the idea of broad scope. (Brubacher & Rudy, pp. 161-162)

1869 contd.

1873 Melvil Dewey conceived the basis of his classification scheme. (Comaromi, p. 1)

1876 American Library Association founded. ([Proceedings . . .] p. 140) The first meeting was attended by 103 people, 12 of whom were women. (Fairchild, p. 157)

- c1876 The founding of Johns Hopkins led to development of research library collections. (McElderry, pp. 58-59) With this began major and lasting changes in academic library holdings, funding, and use/service patterns.

- The Co-operation Committee appointed at ALA. (Bowker, "Lib. J.," p. 7) It led to cooperative efforts and development of many modern library services and uniformities.

- The first edition of Dewey's classification printed; it was 44 pages long. (Ency. of Lib. &

Higher Education

Harvard President Charles William Eliot proposed the elective system and began an influence which would make him a national force. (Rudolph, pp. 290-292)

Johns Hopkins, emphasizing graduate education, established on the German model; research and scholarship became a new higher education focus. (Brubacher & Rudy, pp. 178-180)

c1876 New professional fields, such as engineering, began to develop. (Veysey, p. 67)

14

1876 contd. Info. Sc. 7:145) This was the first widely accepted classification scheme and more workable than previous models.

- Melvil Dewey's company, Library Bureau, standardized the catalog card size; libraries moved toward more uniformity. (Vann, p. 35)
- Harvard library, largest college library of the time, had 212,050 volumes. Yale followed with 95,200. A library as small as Trinity College with 2,400 volumes was listed in "Statistics of Some of the Principal College Libraries," published by the U.S. Bureau of Education. (Holley, pp. 6-7)
- Academic library budgets remained small with Harvard spending $ 9158 for material while some public libraries were much better funded. That year the Library of Congress spent app. $15,000 for material and Boston Public Library spent $141,300. With the origin of the research focus, academic libraries began to grow. (Holley, p. 8)

Academic Libraries

1876 contd. c1870s Greater student access allowed in academic libraries with expanded hours open and increased emphasis on librarians' educational purpose. (Holley, p. 20)

- Most academic libraries retained closed stacks, but opinion was shifting to favor open stack areas. Harvard's library was open 48 hours a week. (Holley, pp. 15, 17)

1878

1880 c1880 Great age of strong library innovators and leaders began.

- c1880 U.S. libraries were acquiring large amounts of research material from Europe, angering European scholars while enriching academic library collections. (Edelman & Tatum, p. 36)
- Reserve system established as part of Harvard's instructional method, having begun c1876. (Winsor, p. 47)

First known reference to major and minor made,
Johns Hopkins catalog. (Levine, p. 506)

c1880 Great age of strong university presidents began.

Academic Libraries

1885

1887 First regular library school opened at Columbia under the direction of Melvil Dewey. Because women were not allowed in the lecture rooms, early classes were held in an emptied lumber room. (Bowker, "Seed," p. 884) Nineteen women and three men were in the first class. (Munthe, p. 114)

- First card catalog cabinet made. (Datz, p. 477)

1890 c1890s Substantial national programs of academic library cooperation began. (Weber, p. 186)

1892

1893 Vertical file invented and produced. It was exhibited at the Columbian Exposition in Chicago. (Datz, p. 479)

1895 First printed catalog cards produced. (Datz, p. 478)

Higher Education

- First regional accrediting agency established. (Levine, p. 506)
- Hatch Act provided direct financial aid to land-grant colleges for agricultural research and publication. (Int'l. Ency. of Higher Ed. 9:4233)

- Second Morrill Act passed to provide annual funds for land-grant colleges. (Ross, pp. 177, 179)
- University of Chicago opened, having a new model with 4 quarters, with its first 2 years were known as junior college. (Storr, pp. 118-119; Rudolph, p. 351)

Academic Libraries

1896 Publication of Cumulative Index to Periodicals, later Readers' Guide to Periodical Literature, began. (Readers' Guide to Periodical Lit., vol. 1, 1900-1904, p. v.

1900 c1900 Interlibrary loan system working although the uniform code was not yet in existence. (Brough, p. 136)

1901

1903 The Library of Congress published the ALA Catalog and was called ". . . the national head of the library system of the country . . . ." (Mearns, p. 181)

1904

Higher Education

- A public high school in Joliet, Illinois developed into the first public junior college. (Brubacher & Rudy, p. 256 ; Levine, p. 507)
- First College Entrance Examination Board tests were administered. (Levine, p. 507)

- Flowering of the Wisconsin idea of ". . . service to all the needs of the democratic community." (Brubacher & Rudy, p. 164 ; Levine, p. 588)

Academic Libraries

1906

1907

1911 Columbia trustees stated that librarians there would hold academic rank. (Downs, p. 119) This was early recognition of the changing role of librarians.

1915 c1915 Reference service achieved departmental status and ceased to be a minor function of academi

Higher Education

- c1906 Major associations and groups dealing with professions began to meet to establish standards which later formed the basis for accreditation. (Rudolph, p. 438)
- Cooperative plan of education began, at the University of Cincinnati. Students alternated study and practical experience. (Int'l. Ency. of Higher Ed. 9:4231-4232)
- Adams Act provided additional funding for establishment of agricultural experiment stations. (Int'l. Ency. of Higher Ed. 9:4233)
- Nelson Amendment to the Morrill-McComas Act began federal support for teacher education. (Int'l. Ency. of Higher Ed. 9:4234)

- American Association of University Professors formed. (Henry, p. 9)

1915 contd. libraries. (Rothstein, p. 37)

1917 "Code of Practice for Inter-Library Loans" adopted by ALA. (Brough, p. 137)

1919 c1919 Systematic library instruction for students began in universities with the University of Maryland among the first to offer it. (Tidmarsh, p. 49) The general idea had existed since the early nineteenth century and was mentioned in Harvard's 1820s library regulations. (Brough, p. 152)

1921

1923 C.C. Williamson's report "Training for Library Service" completed. It led to major improvements in librarians' education. (Wilson, pp. 255-256)

1926 Melvil Dewey foretold the use of non-book formats, stating, "In fact, I am not at all sure that the library of fifty years from now will not have outgrown the book and that it may go back into the

Higher Education

- By 1921, 207 junior or community colleges existed. (Int'l. Ency. of Higher Ed. 9:4231)

- c1926 There were 40 institutions heavily involved in graduate programs, (Edelman & Tatum, p. 40)

1926 contd. museum like the inscription on clay." (Dewey, p. 288)

- c1926 Huge increases in information published led to library funding problems, especially in the sciences. (Edelman & Tatus, p. 41)

1927 Dewey's classification scheme in use by 96% of the public libraries and by 89% of the college and university libraries, an unprecedented acceptance. (Rider, p. 476)

1928 University of Chicago Library School established, the first to offer a doctorate in librarianship. (Downs, p. 121)

1930 c1930-1940 ". . . collections in the five oldest university libraries grew an average of 42.3 percent; the five youngest increased by 93.6 percent." (Edelman & Tatus, p. 42)

- List of Books for College Libraries published as an evaluation and collection building aid. (Kaser , p. 226)

- ALA Council approved the principle of federal aid for libraries. (Thomison, p. 128)

Higher Education

- c1930-1940 Innovative colleges developed. (Levine, pp. 509-510)

Academic Libraries

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1931 J.R. McGaughty, Professor of Education at Columbia, stated that librarians were ". . . about the worst paid profession." (McGaughty, p. 403)

1933 c1933 The union catalog idea achieved great strides with the granting of federal and foundation money. (Weber, p. 188)

1934 Classified List of Periodicals for the College Library published. (Kaser, p. 226)

1935 c1935 Union catalogs were established with federal funds. They led to greater bibliographic control and eventually to broader access to material. (Hamlin, p. 184)

1936 Library automation began with the first automatic punchcard system installed at the University of Texas library. (Ency. of Lib. & Info. Sc. 14:338)

1938 c1938 Fremont Rider found that research academic collections double every 16 years. (Tuttle, p. 94)

Higher Education

- Federal Emergency Relief Administration created. It provided funds for students during the depression era; a new type of federal aid to education began. Two years later the program came under the National Youth Administration. (Henry, p. 24)

Academic Libraries

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1938 contd. Carnegie Commission gave grants to 92 junior college libraries and they began a period of rapid growth. (Wallace, p. 160)

1940 Duplicates Exchange Union formed to help libraries swap for desired titles. (Tuttle, p. 81)

1943

1944 Fremont Rider suggested use of microprint as a partial solution to the space problems. (Hamlin, p. 104)

- First major university to have full faculty status for all librarians, University of Illinois. (Hamlin, p. 120)

1945 Cooperative Acquisitions Project began with major U.S. libraries uniting to obtain foreign material. (Edelman & Tatum, p. 45)

- c1945 Junior college libraries established as academic libraires, (Wallace, p. 159)

1948 United States Book Exchange Formed. (Tuttle, pp. 81-82)

Higher Education

- Higher education became very involved in government contracts, especially in the sciences. (Henry, p. 44)
- Servicemen's Re-Adjustment Act (G.I. Bill) passed. (Brubacher & Rudy, p. 230)

- c1945 Influx of returning servicemen created a new view of higher education's clientele. (Henry, pp 66-68)
- Harvard published a report titled General Education in a Free Society. (Brubacher & Rudy, p. 303)

Academic Libraries

1948 contd. Farmington Plan began to acquire foreign material under a cooperative program. (Weber, p. 189)

1949 Lamont Library at Harvard opened as the first separate undergraduate library. (Hamlin, p. 74)

1951 Midwest Inter-Library Center, later Center for Research Libraries, opened by ten midwestern libraries for cooperative purchasing. (Weber, p. 189)

1952 c1952 Most academic libraries had reorganized into two major divisions: readers' services and technical services. (Dunlap, p. 104)

1954

1956

1957 American College and Research Libraries published College and University Library Accreditation Standards. (Kaser, p. 225).

Higher Education

- Cooperative Research Act authorized the federal government to employ services of higher education institutions for educational research. (Int'l. Ency. of Higher Ed. 9:4234)
- Great enrollment increase projected. (Henry, p. 100)
- U.S.S.R.'s Sputnik flight began expansion of science curriculum. (Henry, pp. 118-119)

Academic Libraries

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1958

1959 "Standards for College Libraries" approved and made an official document of ALA. The document ", . . was instrumental . . . in gaining improvement in college library resources and services not only in American but in the rest of the world as well. (Kaser, p. 225)

Higher Education

- National Defence Education Act passed; it offered loans to undergraduate students, graduate fellowships and subsidized teacher training programs in universities. (Brubacher & Rudy, p. 233)

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